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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,150	04/23/2004	Shuichi Izawa	1081.1202	7843

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EXAMINER
MARTINEZ, DAVID E

ART UNIT	PAPER NUMBER
2181	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/830,150	IZAWA ET AL.
	Examiner	Art Unit	
	David E. Martinez	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

FRITZ FLEMING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
10/29/2006

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *4/23/04*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

With regards to claim 1, the term "the operation" in line 3, lacks antecedent basis. Did

the Applicant mean "an operation"? Also, the term "said I/O unit" in lines 9 and 13 also lack

antecedent basis and render the claim indefinite since they appear to refer to the term "a

plurality of I/O units" in line 7. Both instances of the term "said I/O unit" refer to singular

instances of I/O units but the claim only recites having "a plurality of I/O units" thus makes it

confusing if "said I/O unit" is referring to one of the plurality of units or if the claim was originally

meant to consistently use "plurality of I/O units" in lines 9 and 13 instead. Furthermore in lines

14-17 and 18-20, the use of the multiple instances of the term "transaction control signals" one

specified by a host and one specific to a middleware layer, renders the claim indefinite since it

could be interpreted to be the same "transaction control signals" specific for both parts without

going through any conversion. It would be less nebulous to perhaps use "a first transaction

control signals" and "a second transaction control signals" to better differentiate between the

two. The addition of "first and "second" to differentiate between the distinct "transaction control

signals" would have to cascade into claim 1's dependent claims.

With regards to claim 2, lines 4-6, the term "edits the parameter to the transaction control

signals specific to said middleware layer," renders the claim indefinite since in claim 1 it appears

that the editing (converting/conversion) operation is done on the transaction control signals and

not on the parameters. Examiner interprets the term to mean "edits the transaction control signals specific to said middleware layer *using* the parameters,...". Please see claim 10 which is of the same scope as claim 2 since it appears to recite the correct limitation.

With regards to claim 5, the term "the cash transaction sequence specified by said customer" lacks antecedent basis.

With regards to claims 7 and 8, the use of word "logicalizes" render the claims indefinite. It is not understood what exactly the word means. Is the Applicant trying to be his own lexicographer by using this new word or is it a typo? If it is a word, does it mean making logical, or does it mean locating (as in sensing/receiving the reply in the claim context)?

Claims 2-8 also suffer from the same deficiencies as claim 1 due to their dependency and thus are rejected under the same rationale.

With regards to claim 9, the term "the operation" in lines 3-4 of the claim, lack antecedent basis. Also in lines 9 and 11 of the claim, the term "said transaction control signals lacks antecedent basis. Examiner interprets the term to reference "transaction signals" from line 5 of the claim.

Claims 10-16 also suffer from the same deficiencies as claim 9 due to their dependency and thus are rejected under the same rationale.

Claims 15 and 18 suffer from the same deficiencies as claim 7 above and thus are rejected under the same rationale.

With regards to claim 17, the term "the operation" in line 3 of the claim, lacks antecedent basis. Also in lines 9 and 11 of the claim, the term "said transaction control signals lacks antecedent basis. Examiner interprets the term to reference "transaction signals" from line 5 of the claim.

With further regards to claim 9 and 17, the use of the multiple instances of the term "transaction control signals", one specified by a host, and one specific to a middleware layer, render the claims indefinite since it could be interpreted to be the same "transaction control signals" specific for both parts without going through any conversion. It would be less nebulous to perhaps use "a first transaction control signals" and "a second transaction control signals" to better differentiate between the two. The addition of "first and "second" to differentiate between the distinct "transaction control signals" would have to cascade into claims 9 and 17's dependent claims.

Due to the vagueness and a lack of clear definiteness in the claims, the claims have been treated on their merits as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7-11 and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 7,024,668 to Shiomi et al. (hereinafter Shiomi).

1.   With regards to claim 1. Shiomi teaches an automatic transaction apparatus [fig 15 element 11 is a network interface that is connected to a remote transaction apparatus not shown – column 7 lines 39-44] for communicating with a host [fig 15 element 30] and performing a transaction operation according to the operation of a customer [column 14 lines 12-20], comprising:

a plurality of I/O units for performing said transaction operation [fig 15 elements 35b1, 35b2]; and

a control unit [fig 15 elements 33, 34, 35] for controlling said I/O unit [fig 15 elements 35b1, 35b2] according to transaction control signals from said host [column 14 lines 12-29, element 30 is the application execution apparatus that uses control signals to execute an operation for an application], wherein said control unit comprises:

a middleware layer [fig 15 element 33] for operating control of a kernel [fig 15 element 34a] and controlling said I/O unit [fig 15 elements 35b1, 35b2];

a parameter file [fig 15 elements 33c1, 33c2 inside element 33c, and elements 34b1, 34b2 inside element 34b] for storing parameters for converting transaction control signals specified by an interface with said host into transaction control signals specific to said middleware layer [column 14 lines 25-40, column 15 lines 32-46, column 18 lines 16-36]; and

an I/O control layer [fig 15 elements 33, 34] for converting the transaction control signals specified by the interface with said host into the transaction control signals specific to said middleware layer, referring to said parameter file, and operating said middleware layer [column 14 lines 25-40, column 15 lines 32-46, column 18 lines 16-36].

2.   With regards to claim 2, Shiomi teaches the automatic transaction apparatus according to claim 1, wherein said I/O control layer [fig 15 elements 33, 34] further comprises a plurality of I/O control libraries [fig 3 elements 33c1, 33c2 inside element 33c, and elements 34b1, 34b2 inside element 34b] corresponding to each of said plurality of I/O units [fig 15 elements 35b1, 35b2], and wherein said I/O control layer calls up said I/O control library according to the transaction control signals from said host, reads parameters corresponding to said I/O control library from said parameter file, edits the parameters to the transaction control signals specific to said middleware layer [as per the 112 rejection, this being read as "edits the transaction control

signals based on the parameters"], and operates said middleware layer [fig 15 element 33 operates inside the middleware layer, column 14 lines 25-40, column 15 lines 32-46, column 18 lines 16-36].

3.   With regards to claim 3, Shiomi teaches the automatic transaction apparatus according to claim 1, wherein said middleware layer comprises:

an I/O client layer for intermediating the transaction control signals to said I/O unit [fig 15 element 33a, column 14 lines 21-29];

an I/O server layer for starting and ending of an I/O operation and controlling the communication protocol by the transaction control signals of said I/O client layer [fig 15 element 33b, column 14 lines 43 to column 15 line 21]; and

an I/O service provider layer for converting messages with each of said I/O units [fig 15 element 33c, column 14 lines 25-40, column 15 lines 32-46, column 18 lines 16-36].

4.   With regards to claim 7, Shiomi teaches the automatic transaction apparatus according to claim 1, wherein said I/O control layer logicalizes [see 112 rejection above] the reply from said I/O unit and replies it to said host [column 15 lines 32-46 providing a resource to the application (the application being the interface card connected to the host)].

5.   With regards to claim 8, Shiomi teaches the automatic transaction apparatus according to claim 7, wherein said I/O unit is an I/O unit for handling a medium [column 18 lines 28-36], and said I/O control layer logicalizes [see 112 rejection above] the reply regarding said medium from said I/O unit, and replies it to said host [column 15 lines 32-46 providing a resource to the application (the application being the interface card connected to the host)].

6.   With regards to claims 9 and 17, they are of the same scope as claim 1 above and thus are rejected under the same rationale.

7.   With regards to claim 10, it is of the same scope as claim 2 above and thus is rejected

under the same rationale.

8.   With regards to claim 11, it is of the same scope as claim 3 above and thus is rejected

under the same rationale.

9.   With regards to claim 15, it is of the same scope as claim 7 above and thus is rejected

under the same rationale.

10.   With regards to claim 16, it is of the same scope as claim 8 above and thus is rejected

under the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4, 5, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

US Patent No. 7,024,668 to Shiomi et al. (hereinafter Shiomi). in view of US Patent Application

Publication No. US 2004/0131082 A1 to Evans et al. (hereinafter Evans).

11.   With regards to claim 4, Shiomi is silent as to the automatic transaction apparatus

according to claim 1, wherein said plurality of I/O units are a plurality of I/O units which

implement cash transactions based on said operation of the customer, however, Evans teaches

using a plurality of I/O units which implement cash transactions based on an operation of a

customer [paragraphs 4, 6 and figs 2 and 3] for the benefit of meeting the needs of an

enterprise by operating numerous distinct computing platforms simultaneously [paragraph 4]

and being able to access data stored in different types of I/O units when performing a

transaction [paragraph 6].

It would have been obvious to combine the teachings of Shiomi and Evans to have said plurality of I/O units are a plurality of I/O units which implement cash transactions based on said operation of the customer for the benefit of meeting the needs of an enterprise by operating numerous distinct computing platforms simultaneously and being able to access data stored in different types of I/O units when performing a transaction.

12.   With regards to claim 5, Shiomi teaches automatic transaction apparatus according to claim 1, wherein said I/O control layer receives the transaction control signals from said host which follows the cash transaction sequence specified by said customer, operates said I/O unit, and returns a reply to said host [column 15 lines 32-46], but he is silent as to the transaction sequence being a cash transaction sequence. However, Evans teaches the use of a cash transaction sequence for the benefit of meeting the needs of an enterprise by operating numerous distinct computing platforms simultaneously and being able to access data stored in different types of I/O units when performing a transaction [paragraphs 4 and 6].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Shiomi and Evans to have the transaction sequence be a cash transaction sequence for the benefit of meeting the needs of an enterprise by operating numerous distinct computing platforms simultaneously and being able to access data stored in different types of I/O units when performing a transaction.

13.   With regards to claim 12, it is of the same scope as claim 4 above and thus is rejected under the same rationale.

14.   With regards to claim 13, it is of the same scope as claim 5 above and thus is rejected under the same rationale.

Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,024,668 to Shiomi et al. (hereinafter Shiomi). in view of Applicant's Admitted Prior Art (hereinafter AAPA).

15.   With regards to claim 6, Shiomi is silent as to the automatic transaction apparatus according to claim 1, wherein said control unit further comprises a browser for communicating with said host on the Web and exchanging the control signals specified by the interface between said I/O control layer and said host. However, AAPA teaches a control unit comprises a browser for communicating with the host on the web and exchanging control signals specified by the interface beween an I/O control layer and the host for the benefit of being able to communicate with the host over the web to perform transactions from any location [fig 27, AAPA disclosed in the instant application in section "Description of Related Art"].

It would have been obvious to one of ordinary in the art at the time of the invention to combine the teachings of Shiomi and AAPA to have a browser for communicating with said host on the Web and exchanging the control signals specified by the interface between said I/O control layer and said host for the benefit of being able to communicate with the host over the web to perform transactions from any location.

16.   With regards to claim 14, it is of the same scope as claim 6 above and thus is rejected under the same rationale.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,995,972 to Allgeier teaches a client accessing resources from a server having resources via middleware.
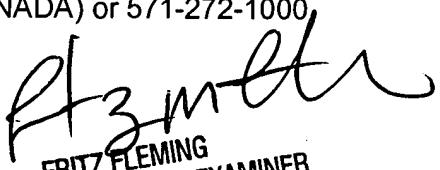
US Patent No. 6,868,448 to Gubta et al. teaches accessing different types of remote resources.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Martinez whose telephone number is (571) 272-4152. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz M. Fleming can be reached on 571-272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DEM

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10/29/2006